

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU2003/001734

**A. CLASSIFICATION OF SUBJECT MATTER**

Int. Cl. 7: C07D 409/12, 333/70, 277/36; C07C 323/63, 323/22, 233/11, 69/618, 63/66, 57/42; A61K 31/381, 31/41, 31/192, 31/165, 31/4166, 31/12; A61P 37/00

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC: C07D, C07C, A61K AND KEYWORDS AS INDICATED BELOW

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

Questel: Database WPAT and Keywords: FC Receptor, FCR, autoimmune, rheumatoid arthritis, lupus, Crohn+, +rhodanin+, STN Substructure search based on selected exemplified compounds & Formula II; Molecular Formula Search based on Formula V; Files CA, Medline and Keywords: FC receptor, benzothiophen?, benzoic acid

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2000/015214 A (ILEXUS PTY LIMITED) 23 March 2000 See especially page 21 and compounds at pages 25-31	7, 11-13
X	Current Opinion in Immunology, Vol. 14 (6), December 2002, Hogarth, "Fc receptors are major mediators of antibody based inflammation in autoimmunity", pages 798-802 See especially Conclusions, page 801	11-13
X	WO 1995/015323 A (WARNER-LAMBERT COMPANY) 8 June 1995 See especially page 1, lines 20-21, Formula V at page 4	1, 2, 14, 15

☒ Further documents are listed in the continuation of Box C

☒ See patent family annex

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search  
10 March 2004

Date of mailing of the international search report

25 MAR 2004

Name and mailing address of the ISA/AU  
AUSTRALIAN PATENT OFFICE  
PO BOX 200, WODEN ACT 2606, AUSTRALIA  
E-mail address: pct@ipaustalia.gov.au  
Facsimile No. (02) 6285 3929

Authorized officer

R.L. POOLEY

Telephone No : (02) 6283 2242

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU2003/001734

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages (Remove spaces when completed if the page is too long)	Relevant to claim No.
X	WO 1995/002406 A (WARNER-LAMBERT COMPANY) 26 January 1995 See especially page 1 and Example	14,15
X	EP 920862 A (ELI LILLY AND COMPANY) 9 June 1999 See especially page 4 line 25	14
X	Aldrich Catalogue Handbook of Fine Chemicals 1996-1997, Aldrich Chemical Co. Inc., 2/14 Anella Ave., Castle hill NSW 2154, Australia, page 384 See Cinnamamide and Cinnamic acid enties	1,2
X	EP 211670 B (ELI LILLY AND COMPANY) 9 May 1990 See especially page 2, Example 1	5,6
P, X	Derwent Abstract Accession No. 2003-821289/77, Class B03, JP 2003252794 A (ONO PHARM CO LTD) 9 October 2003	5, 6
X	EP 434394 B (ELI LILLY AND COMPANY) 5 August 1998 See especially compounds at pages 7-8	5,6
X	EP 722729 A (ELI LILLY AND COMPANY) 24 July 1996 See especially compounds at pages 4-5	5,6
X	US 3869553 A (HOLLAND) 4 March 1975 See especially claim 5	3,4
X	WO 2002/042289 A (ELI LILLY AND COMPANY) 30 May 2002 See compounds of Formula II, Page 4	3,4
X	WO 2001/025193 A (NIPPON SODA CO. LTD) 12 April 2001 See compounds at pages 5-11	3,4
P,X	Derwent Abstract Accession No. 2003-473339/45, Class B05, C03, JP 2003055340 A (DAIKIN KOGYO KK) 26 February 2003	3,4
X	DE 3532280 A (BAYER AG) 12 March 1987 See compounds of Formula I	3,4
X	BE 854857 A (SERDEX - SOCIETE D'ETUDES, DE RECHERCHES, DE DIFFUSION ET D'EXPLOITATION) 21 November 1977 See compounds of Formula I	3,4
X	EP 621255 B (ADIR ET COMPAGNIE) 20 August 1997 See especially page 12	3,4

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/AU2003/001734**Box I** Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos :  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos : 1 to 6, 13  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:  
An initial scan of the prior art revealed a large number of potential citations disclosing compounds encompassed by claims 1 to 6. For example, claims 1 and 2 encompass such common compounds as cinnamic acid. Additionally, claim 13 encompasses an indeterminate range of compounds. Accordingly for economic reasons, only a restricted search has been undertaken in relation to these claims.
3. ☐ Claims Nos :  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

**Box II** Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/AU2003/001734

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member					
WO	2000/015214	AU	57544/99	CA	2343414	CN	1323203
		EP	1109545	JP	2002524504	US	6355683
WO	1995/015323	AU	21852/95	CA	2172382	EP	731800
		NZ	2908707	US	5426191	US	5608074
WO	1995/002406	AU	73961/94	CA	2163542	EP	789569
		EP	920862	CA	2309859	CN	1109683
EP	211670	JP	2001523676	US	6395769	WO	1999/025707
		AU	52934/90	AU	60972/86	CA	2013599
EP	211670	CN	1014891	DE	3670951	EP	391644
		JP	2290862	JP	62042977	RU	2014329
JP	2003252794	US	5356917	US	5691367		
EP	434394	AU	68266/90	CA	2032330	CN	1029846
		DE	69032537	EP	434394	JP	3036853
EP	722729	JP	4279573	RU	2036915	RU	2050355
		US	5216002	US	5387690		
US	3869553	AU	47038/96	CA	2210566	JP	10512883
		US	5731336	WO	1996/022772		
WO	2002/042289	US	3855285	US	3856951	US	3882230
		US	3953595				
WO	2001/025193	AU	30409/02				
JP	2003055340	AU	75555/00	CN	1377340	EP	1219598
DE	3532280						
BE	854857	FR	2351937	GB	1542305		
EP	621255	AU	60533/94	CA	2121571	DE	69405036
		FR	2704224	JP	6340580	US	5512595
		US	5627205				

END OF ANNEX

(To add more lines press TAB at end of last row, remove paragraph marker to join up 'END OF ANNEX' box)